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ABSTRACT

The relative effectiveness of two types of health education materials developed for children in grades 4 through 6 was evaluated. Materials tested were a comic book and a slide tape presentation, both of which emphasized a participatory role as health consumer. A total of 278 students, in 8 fifth-grade classes, participated. Students were randomly assigned into four groups: (1) comic book only; (2) slide tape units only; (3) comic book and slide tape; and (4) traditional health education films (control). The relative effectiveness of the comic book and slide tapes was tested in four 1-hour class sessions. The sessions dealt with what it is like to be a consumer, learning about oneself, asking questions and listening, helping to decide what to do, and taking care of oneself on a daily basis. All students compiled personal health records and learned about physical examinations. The effectiveness of the materials was demonstrated in both cognitive and affective test results. Knowledge scores increased according to the amount of innovative materials presented. Reaction questionnaire results showed generally positive opinions of the materials, with the comic book rated especially positive. (Authors/JD)

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An Evaluation of the Effectiveness of Participatory
Health Consumer Materials for Children

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ABSTRACT

An experimental design was implemented to assess the relative effectiveness of two sets of participatory health-consumer materials developed for children in grades four through six. The study was first conducted in four fifth-grade classes in an urban, low-income area near Denver. It was then replicated in two other districts in Colorado -- one characterized as a suburban, middle-to-high income area, and the other characterized as a rural, middle-income area. Within each class, children were randomly assigned into four groups; the groups differed in the type and amount of the innovative materials they were exposed to. After four days of using the materials (or, for the control group, watching traditional health education films), all children completed a knowledge test and affective measure. Additional dependent variables included amount of health history information provided by the children in their Health History booklets, and attitudinal Reaction Questionnaires for the materials.

Analyses of the data yielded statistically significant treatment effects for the knowledge test; in each district, scores increased according to the amount of the innovative materials presented. In two of the districts, statistically significant treatment effects for scores on the affective measure were also found; the groups that were shown all of the materials out-performed the other groups on this measure, but the patterns of differences in amount of information given in the Health History booklets were found in any district. Reaction Questionnaire results showed generally positive opinions of the materials, with one of the materials -- the comic book -- rated especially positive.

An Evaluation of the Effectiveness of Participatory Health Consumer Materials for Children

The purpose of this study was to evaluate the effectiveness of educational materials designed to familiarize the school-age child with a new, participatory role as a health consumer. The materials are of two types: (1) a comic book; and (2) a set of three slide-tape units with accompanying booklets. An experimental design was used to test the relative effectiveness of the materials when used separately, as well as together.

Background

The participatory health consumer materials evaluated in this study were developed because of growing concern over non-compliance and lack of consumer involvement in health care. A number of studies have discovered high rates of non-compliance; Gillum and Barsky (1974), for example, reported that fifty percent of professional health service visits result in non-compliance. Other studies have documented the importance of increased consumer involvement in health care, especially at the time of receiving professional health services (Pratt, 1976). The results of an extensive study by Lewis (1975), in particular, demonstrated the need for orienting children to new roles as health consumers. Over a four year period, the extent to which children make decisions regarding their own health was studied. Lewis found that, although the child was the focus of attention, interactions related to the child's health almost exclusively involved adults (physicians, nurses, mothers); the child remained passive and relatively uninvolved. Lewis concluded that the style of care (not the "what," but the "how") provided to children needs to be examined and altered if children are to learn to make appropriate health-related decisions as adults. This view -- that a strengthening and expansion of the health consumer role can promote more responsible health behaviors and attitudes -- is one increasingly shared by health professionals, social scientists, and consumer advocates (Gallagher, 1976).

To promote the concept of consumer participation in health care among children, sets of materials have been and are being developed at the University of Colorado Health Sciences Center, in conjunction with the School Nurse Practitioner (SNP) Program. The SNP program is a continuing education course for school nurses interested in expanding their role as providers of health services at schools. In addition to their responsibility for providing health services (e.g., physical examinations, laboratory work, neurodevelopmental evaluation), these nurses frequently use their clinics as classrooms where meaningful health education activities take place. Consequently, training for new roles as health consumers seems to be especially well suited to this school health clinic. Here the children have easy access to the health facility and the training. Furthermore, the arrangement and activities occurring within the school health clinic are similar enough to traditional health facilities that one hopes the learning from one setting can transfer to another.

The first set of materials for orienting children to participatory health consumer roles are those evaluated in this study, and were developed for and with children in the fourth through sixth grades. Additional materials include similar sets for younger children (kindergarten through third grade). A self-help health curriculum for high school students has also been prepared and is now being evaluated. Finally, a health professional's Guide to Participatory Health Care has been produced which includes for various ages (five through adolescence) a developmental profile and a listing of health interests, health concerns, and specific activities aimed at increasing a child's participation during a visit for professional health care.

The materials used in this study had been designed for classroom use. In addition, other materials (such as the health professional's Guide to Participatory Health Care, the child's own health record, and other techniques) are utilized within the school clinic to reinforce classroom teaching and stimulate the emergence of the desired role behavior.

Common to all of the materials and teaching approaches is the emphasis on the following behaviors which, as an aggregate, have been designated the participatory health consumer role:

- 1) Asking health professionals questions for the purpose of clarification and improved understanding;
- 2) Communicating information about one's own health to the health professional;
- 3) Listening to and remembering what the health professional has to say and advise;
- 4) Participating with health professionals in decisions about one's own health;
- 5) Assuming responsibility for certain tasks and practices related to maintenance of personal health.

The materials used in classrooms to socialize children into the role of participatory health consumers are covered in four one-hour classes. The first sessions deals with what it is like to be a consumer. A comic book about a character named "Zy-Exelon on the Planet Quantus" is used to get the message across. Zy-Exelon gets his health checkup from a computer. He is frustrated because no one will actually listen to him, so he "telecommunicates" with his friend on earth, Bill. Bill is about to go in for a checkup and he invites his galactic friend to join him (telepathically).

The concepts depicted in the comic are: (1) exchange of information between the doctor and child; (2) learning new things about oneself and how to care for oneself; (3) asking questions and listening; (4) helping decide what to do; and (5) taking responsibility for caring for oneself on a daily basis.

The next session reinforces this participatory role. Students see a short slide-tape and a booklet, "I am a Health Care Consumer". The same characters from the comic book are used in this booklet. Children asked specific questions about good health habits and about themselves. The concept of decisions is introduced at the proper level of understanding for children in fourth through sixth grades. This is done to instill the idea that the child has control over his/her body and the power to initiate good health habits. For example, the child is asked "Should I follow the nurse's advice to cure my cold with rest, drinking juice and water, and covering my mouth and nose when I sneeze?" The steps to follow to arrive at this decision are outlined: (1) talk to people, ask questions; (2) ask, "Why is juice better for a cold than milk?"; (3) sort the ideas to find the best solution; (4) make a choice, e.g.; rest, juice and cough syrup, and (5) try the choice.

The third session involves keeping a health record. A student manual, "Health History . . . a book about me and how I grow" is distributed and a slide-tape on health histories is shown. It follows up with the notion that to make decisions, information is needed. In the manual, specific facts are accumulated -- past diseases, broken bones, immunizations. Birth information is entered by the child. In very simple terms, childhood diseases are described and the child checks if they have had them. The same approach is used for an immunization history. The child's accomplishments are itemized. Also, attitudes are indicated, for example, "I like going to school," or "School is not a happy place for me".

The health history book, obviously, needs some information from home as to specific dates and infant information. Thus far, parents have responded very positively by assisting students in completing their health histories.

The last class deals with a physical examination. The premise is that, in addition to learning about body function and the health habits which should be practiced to maintain this structure, children need to understand the physical examination procedure so they might replicate various aspects of the assessment as a means to improved and more objective decision making when physical symptoms and signs appear. Furthermore, the health consumer who knows what constitutes a complete physical examination has a definite advantage in judging the quality of health care received. The slide-tape on a physical exam demonstrates how the child can take an active role. A booklet reiterates the fact that the child should participate in the examination by asking questions about things that are bothering them and asking why a particular procedure is being used, for example, "What is blood pressure?"

To evaluate the effectiveness of these innovative materials, an experimental study was conducted in the spring of 1978. One question of interest concerned the relative effectiveness of the comic book and the slide-tape/booklet sets, since developing and disseminating these two types of material differ in terms of expertise required, cost, and so forth.

Design of the Study

The study was first conducted in four fifth-grade classes in one school district located near Denver, Colorado. It was then replicated in two other districts, also in Colorado. The only design difference among the original study and the two replications was in the number of classes involved -- four in the first district, one in the second, and three in the third.

A post-test-only experimental design was used. Within each class that participated, students were randomly assigned into four groups. The independent "treatment" variable thus was comprised of four levels. The four groups differed in the types of material they were exposed to as follows:

Group 1: Comic book only

Group 2: Slide-tape units only

Group 3: Comic book and slide-tape units

Group 4: Neither comic book nor slide-tape units (control group)

In the two districts which more than one fifth-grade class participated, "class" became a second independent (classificatory) variable in the design.

The dependent variables were as follows:

- 1) Knowledge about the concepts associated with the participatory health role;
- 2) Attitudes about health, especially in relation to oneself (health locus of control);
- 3) Extent of information provided about oneself, especially one's own health;
- 4) Reactions to the materials, in terms of interest, clarity, significance, and perceived effectiveness.

Instrumentation

The first, second, and fourth dependent variables were measured by children's responses to written tests and questionnaires. The knowledge test was developed by the investigators and consisted of 45 multiple-choice and true-false questions. Content was derived from the materials, but in a general concept-oriented way rather than specific to the information provided in the participatory materials. The test was piloted with a small group of students prior to its use, and revised to eliminate ambiguous and non-discriminating items. Content validity information was obtained by having program faculty and staff review the instrument in terms of the objectives.

The affective measure was adapted from the Children's Health Locus of Control Scale (Parcel and Meyers, 1977). In addition to the 20 items which comprise that scale (for which reliability and validity data are available: see Parcel and Meyer, 1977), an additional 14 items were written to measure children's attitudes toward taking responsibility for their own health care, attitudes about going for health care, and attitudes toward health professionals. The response choice for each item consisted of "yes" or "no", with instructions to circle the one which indicated whether or not the respondent agreed with the statement. This instrument was also piloted prior to the study, and reviewed for content validity.

The Health History booklet, described previously, was used to obtain data on the extent to which children were willing and able to provide information about their own health. All children in the study were given the booklets to work on for three days. The amount of information provided was determined by tabulating responses to the questions in the booklet.

The fourth measure actually consisted of four separate Reaction Questionnaires, one for each of the three slide-tape units and the comic book; these questionnaires elicited children's opinions of the materials. A three-point Likert-type scale was used to assess their reactions in terms of interest, clarity, significance, and perceived effectiveness. The number of questions per questionnaire varied from nine to thirteen. In addition, four open-ended questions were included; these asked the children to describe what they liked best about the materials, what they liked least, what (if anything) they learned from the materials, and if in what ways the materials changed their feelings about health care. These questionnaires were also piloted and reviewed for content validity prior to their use in the study.

Subjects

A total of 278 students, in eight fifth-grade classes, participated in the study. In the first district, there were 103 children (23 to 28 in four different classes in three different schools) who participated. This district is located in a low-income urban area adjacent to Denver. The second district in which the study was conducted is located in a suburban area outside Denver. One large, open-space class (89 children) was available. Generally, the socioeconomic status of the families in this district is middle to high. The third district is located in a rural area of Colorado, approximately 100 miles from Denver. The community is primarily a middle-income farming community. A total of 86 children (28 to 30 in three classes within one school) participated in the study in this district.

Procedures

The study was conducted in the four classes in the first district during the week of March 5, 1978; in the one class in the second district during the week of March 13, 1978; and in the three classes in the third district during the week of April 24, 1978. The procedures used to present the materials and administer the instruments were the same in each of the eight classes.

Children in each class were randomly assigned to the four treatment groups before the study began. (Class lists provided by the teacher and a Table of Random Numbers were used for the random assignment.) Colored name tags were also pre-prepared, and given to the children the first day and each successive day of the week. Four colors were used -- one corresponding to each treatment group.

A team of persons associated with the project staff went to each class. Included on the team were a professional health educator, a sixth-grade teacher, and three nurses. All were familiar with the materials; the two teachers, furthermore, had been trained in the use of the materials with children and had participated in the pilot study.

The team went to each class for one hour on each of five consecutive days (Monday through Friday). After handing out the name tags, children were separated into two rooms. On Monday, the Comic-Book-Only and the Comic-Book-and-Slide-Tape groups remained with the two teachers; the other groups (Slide-Tape-Only and Control) went to a different room with the nurses. In the former, the children and teachers read the comic book and discussed it; in the latter, traditional health education films were shown. (The films were used throughout the study as the control condition; they presented a variety of traditional health education concepts and information.) At the end of the hour, the children who had worked with the comic book filled out the Reaction Questionnaire for that material. To not unduly alert the other children to their "control" situation, they too filled out similar questionnaires for the films.

On each of the next three days (Tuesday, Wednesday, and Thursday), the Slide-Tape-Only, as well as the Comic-Book-and-Slide-Tapes, groups worked with the teachers on each of the three slide-tape units. The slide-tapes were viewed and discussed, and the various activities in the booklets were completed. At the end of each hour, the same procedure was followed as on Monday with regard to Reaction Questionnaires. The two groups that saw health education films on these three days were the Comic-Book-Only and the Control groups. Thus, the design was implemented in a way that only one group -- the Comic-Book-and-Slide-Tape group -- was exposed to the new materials everyday for four days. Due to the desire to assess relative effectiveness of the materials, each of the other groups was in the control room at least one day, with the Control group in the control room all four days.

Friday was testing day. The knowledge and affective instruments were administered to all children in the class, assembled together in one room. All the questions were read aloud to the children as they followed along and marked their answers.

The Health History booklets, which were given to all children Monday morning, were turned in by the children on Wednesday. The Slide-Tape group and the Comic-Book-and-Slide-Tape group discussed the booklet in class on Wednesday following their viewing of the Health History slide-tape. (Since the booklet was designed to accompany this unit, it became part of the class activity for that day.) The other two groups did not discuss the booklet, but returned them on Wednesday, also. The procedures that were followed in each class are illustrated graphically in Table I.

Analyses of the Data

Total scores were computed for the knowledge test for each child by summing the number of correct answers given (maximum score possible was 45). The affective measure was scored in such a way that the "yes" or "no" answers reflecting greater internal health locus of control and more positive attitudes toward health care and health care providers were scored "2," while answers reflecting less or absence of those properties were scored "1"; the total score was thus the sum of item-level scores (maximum score possible was 63). Likewise, scores for the objective portions of each Reaction Questionnaire were the sum of item scores; each item score ranged from 1 (not positive about the materials) to 3 (very positive). A score for each Health History booklet was the total number of answers given to questions about the child (maximum score possible was 100). Internal consistency reliability estimates (Hoyt) were calculated for each measure for each set of district data.

The major analyses consisted of Analyses of Variance on three of the dependent variables -- knowledge scores, affective scores, and Health History scores. Each set of district data, and each dependent variable, was analyzed separately. (Since the use of the second and third districts was for replication purposes, the data were analyzed separately for each district.) For the first and third districts, in which "class" as well as "treatment" were factors, two-way Analyses of Variance were run. For the second district, in which only one class participated, one-way Analyses of Variance were conducted to investigate differences among the four treatment groups. Data from the Reaction Questionnaires were not subjected to statistical tests. The lack of independence among the groups across these questionnaires (due to the different configurations of the four groups on the different days) rules out a statistical comparison.

Results

The results of the Analyses of Variance were very consistent for the three districts on the knowledge and Health History scores, and fairly consistent on the affective scores. In Table II, Analysis of Variance results for the analyses of the knowledge scores are given. In Tables III and IV, results for the three analyses of the affective and Health History scores are presented, respectively.

On the knowledge scores, statistically significant treatment effects were found for all three replications of the study. An examination of the means for the treatment groups (which are shown in Table V) reveals that differences were in the desired direction. Highest mean scores were given by the group which had all the materials (Comic-Book-and-Slide-Tape Units). Mean scores then decreased concomitantly with the amount of materials the groups were exposed to -- Slide-Tape-Only, Comic-Book-Only, and none of the new materials (Control). To further explore the strength of the differences among group means, Tukey's "Honestly Significant Differences" test

(Kirk, 1968) was used on each set of data. For the first two districts, all pair-wise comparisons were statistically significant ($\alpha = .05$), except between the means for the Comic-Book-Only group and the Slide-Tape-Only group. The data from the third district yielded significant differences between the Control group and both the Slide-Tape-Only group and the Comic-Book-and-Slide-Tape group.

A statistically significant class effect was also found for the data from the first district. The differences here appeared to correspond to known reading ability differences among the four classes in that district.

The analyses of the affective scores yielded statistically significant treatment effects in two of the three districts. The treatment group means (Table V) showed some similarity across districts, although not as much for this variable as for the knowledge scores. The group which saw all the materials did outperform the other three groups in each district. Only one pair-wise difference was statistically significant at the .05 level (using Tukey's test). It was the difference between the means of the Comic-Book-Only group and the Comic-Book-and-Slide-Tape group; this occurred for each set of district data.

Analyses of Health History scores yielded no statistically significant treatment effects. In the first district, a significant class effect emerged, with the means showing a pattern similar to that for the class effect for that district on the knowledge variable. Due to the lack of significant treatment effects for this variable, the summary statistics are not presented.

Summary statistics for the Reaction Questionnaires are given in Table VI. The means and standard deviations are presented in terms of the three-point item scale, i.e., 1 = negative, 2 = neutral or between positive and negative, and 3 = positive about the materials. The mean scores for the first district were slightly higher for all four materials than those for the other two districts. All mean scores, however, did fall between neutral and positive. The comic book appears to have been especially popular, given its relatively high ratings in all three districts.

Discussion

The significant treatment effects for the knowledge variable demonstrated effectiveness of the materials in terms of immediate cognitive outcomes. Furthermore, the consistency of these findings for all three replications of the study showed that the cognitive outcomes were not unique to one type of district. Rather, students in all three districts -- characterized quite differently according to income levels and setting -- were differentially affected by the materials in the same ways. The more extensive the exposure to the materials (i.e., the more material they used), the greater was their understanding of the participatory health consumer role concepts.

The effectiveness of the materials in terms of affective outcomes -- primarily health locus of control -- was also demonstrated, although not quite as dramatically or consistently as the cognitive effects.

In two of the three districts, the findings showed a statistically significant treatment effect, favoring the groups exposed to all of the materials. In the third district, that same group had the highest score on the affective measure, although there was no significant main effect. The lack of more dramatic differences is not surprising. Unlike knowledge about a concept or set of concepts, affective variables -- especially locus of control -- are difficult to alter. The fact that significant main effects were found for two of the districts is encouraging, given the relatively short duration of time spent dealing with the new concept and materials.

No significant treatment effects emerged for the Health History dependent variable in any of the districts. It may have been that the two-day time period provided for completion of these booklets was too short. Relatedly, the children in the groups which used the Health History materials in class (the Slide-Tape-Only group and the Comic-Book-and-Slide-Tape group) did not do so until the day when booklets were turned in. If the booklets had been kept by all children beyond Wednesday (the Health History unit day), differences might have occurred. Although the problem with the Wednesday collection of the booklets was noted when the study was first conducted in District #1, it was decided to leave the arrangement as originally planned during the replications so as not to change the nature of the study. The question of the extent to which the innovative materials would affect health and health-related behaviors was not addressed in this study. Rather, the intent had been to investigate immediate effects before embarking on a more complex, extensive study which would include behavioral outcomes. The finding from this study suggest that such an effort would not be worthwhile. The cognitive effect was large and significant in all three districts. Differences on the affective measure, although not quite as large, were significant in two of the three districts. Determining that the materials do result in acquisition of the concepts, and quite probably influence children's attitudes about health and their health locus of control, is an important first step in establishing their validity for the long-range objectives which include behavior changes.

TABLE I

Schematic Representation of Procedures Followed for Materials
Presentation and Data Collection in Each Class

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Comic-Book-Only Group	Comic Book - * Room A	Films - Room B	Films - Room B - - - - - collection of Health History booklets	Films - Room B	Cognitive and Affective Measures Room A
Slide-Tape-Only Group	Films - Room B**	Health Consumer Unit - Room A	Health History Unit - Room A - - - - - collection of Health History booklets	Physical Exam- ination Unit - Room A	Cognitive and Affective Measures Room A
Comic-Book-and-Slide- Tape Group	Comic Book - Room A	Health Consumer Unit - Room A	Health History Unit - Room A - - - - - collection of Health History booklets	Physical Exam- ination Unit Room A	Cognitive and Affective Measures Room A
Control Group (neither Comic Books nor Slide-Tape Units)	Films - Room B	Films - Room B	Films - Room B - - - - - collection of Health History booklets	Films - Room B	Cognitive and Affective Measures Room A

* At the end of each session on Monday through Thursday, children in Room A completed the Reaction Questionnaires for the units they had worked with that day. Children in Room B completed "fake" reaction questionnaires.

** The films shown in the control room (Room B) each day were a variety of traditional health educational films.

TABLE II

Analyses of Variance Results for the
Cognitive Test for Three Replications

SOURCE OF VARIATION	DISTRICT = 1			DISTRICT = 2			DISTRICT 3		
	<u>df</u>	<u>MS</u>	<u>F</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Treatment (T)	3	1170.47	49.10***	3	876.81	41.10***	3	115.15	4.54**
Class (C)	3	188.73	7.92***				2	4.86	.191
T x C	9	43.81	1.84				6	7.08	.28
Subjects (T x C)	77	23.84		83	21.33		65	25.37	

* P < .05

** P < .01

*** P < .001

TABLE III

Analyses of Variance Results for the
Affective Measure for Three Replications

SOURCE OF VARIATION	DISTRICT = 1			DISTRICT = 2			DISTRICT = 3		
	<u>df</u>	<u>MS</u>	<u>F</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Treatment (T)	3	63.99	2.98*	3	46.72	2.64*	3	23.49	.89
Class (C)	3	44.03	2.05				2	6.25	.27
T x C	9	20.01	.93				6	8.66	.33
Subjects (T x C)	77	21.47		83	17.68		65	26.44	

* $P < .05$

** $P < .01$

*** $P < .001$

TABLE IV
Analyses of Variance Results for
Health History Scores for Three Replications

SOURCE OF VARIATION									
	df	MS	F	df	MS	F	df	MS	F
Treatment (T)	3	757.81	1.56	3	61.50	.141	3	722.27	.96
Class (C)	3	5815.52	12.00***				2	539.44	.72
T x C	9	916.85	1.89				6	625.65	.83
Subjects (T x C)	64	484.66		73	435.00				

* P < .05

** P < .01

*** P < .001

TABLE V
Summary Statistics for the Cognitive and
Affective Measure for Three Replications
(Three Districts)

TREATMENT GROUP	DISTRICT = 1					DISTRICT = 2					DISTRICT = 3				
	n	Cognitive		Affective		n	Cognitive		Affective		n	Cognitive		Affective	
		$\bar{X}$.	Sx	$\bar{X}$.	Sx		$\bar{X}$.	Sx	$\bar{X}$.	Sx		$\bar{X}$.	Sx	$\bar{X}$.	Sx
Control	24	23.5	5.3	59.1	3.9	22	25.8	5.6	63.6	3.5	19	30.6	5.3	60.5	5.2
Comic Book	24	29.6	6.9	58.5	4.8	20	34.1	5.2	60.9	6.9	17	33.3	5.4	68.3	5.4
Slide-Tape Units	24	33.3	6.4	59.8	6.0	22	35.5	4.0	62.6	2.9	18	35.3	4.4	60.1	4.9
Comic Book and Slide-Tape Units	21	40.6	2.2	62.4	3.7	23	41.0	3.4	64.4	2.5	21	36.1	4.1	60.7	4.2
r_{xx} Number of Items			.90 45		.77 34			.90 45		.79 34			.77 45		.76 34

TABLE VI

Summary Statistics for Four Reaction
Questionnaires for Three Replications

TYPE OF MATERIAL	No. of Items	DISTRICT = 1 (Hoyt)				DISTRICT = 2 (Hoyt)				DISTRICT = 3 (Hoyt)			
		n	$\bar{X}$	S_x^1	r_{xx}	n	$\bar{X}$	S_x	r_{xx}	n	$\bar{X}$	S_x	r_{xx}
Comic Book	11	45	2.47	.40	.82	44	2.28	.29	.73	37	2.44	.25	.52
"Health Care Consumer" Unit	9	48	2.47	.26	.47	43	2.16	.33	.66	38	2.39	.28	.60
"Health History" Unit	13	47	2.47	.29	.73	42	2.20	.33	.77	39	2.29	.45	.86
"Physical Exam- ination" Unit	13	45	2.44	.32	.76	43	2.17	.40	.85	39	2.31	.34	.76

¹ Means and standard deviations are presented in terms of the three-point item scale, i.e., 1 = negative, 2 = neutral or between positive and negative, 3 = positive about the materials.

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